

SEQUENCE LISTING

<110> Somers, William S. Stahl, Mark Sullivan, Francis X.

<120> CRYSTAL STRUCTURE OF E. COLI GDP-FUCOSE
SYNTHETASE (AND COMPLEXES THEREOF) AND METHODS OF
IDENTIFYING AGONISTS AND ANTAGONISTS USING SAME

<130> 16163-025002 <140> US 10/090,879 <141> 2002-03-04 <150> US 09/373,432 <151> 1999-08-13 <150> US 60/096,452 <151> 08-13-1998 <160> 3 <170> FastSEQ for Windows Version 4.0 <210> 1 <211> 338 <212> PRT <213> Escherichia coli <400> 1 Met Arg Val Leu Val Thr Gly Gly Ser Gly Tyr Ile Gly Ser His Thr Cys Val Gln Leu Leu Gln Asn Gly His Asp Val Ile Ile Leu Asp Asn Leu Cys Asn Ser Lys Arg Ser Val Leu Pro Val Ile Glu Arg Leu Gly 40 Gly Lys His Pro Thr Phe Val Glu Gly Asp Ile Arg Asn Glu Ala Leu 55 Met Thr Glu Ile Leu His Asp His Ala Ile Asp Thr Val Ile His Phe Ala Gly Leu Lys Ala Val Gly Glu Ser Val Gln Lys Pro Leu Glu Tyr 90

Tyr Asp Asn Asn Val Asn Gly Thr Leu Arg Leu Ile Ser Ala Met Arg
100 105 110

Ala Ala Asn Val Arg Asn Tyr Ile Phe Ser Ser Ser Ala Thr Val Tyr
115 120 125

Gly Asp Asn Pro Lys Ile Pro Tyr Val Glu Ser Phe Pro Thr Gly Thr

Pro Gln Ser Pro Tyr Gly Lys Ser Lys Leu Met Val Glu Gln Ile Leu

Thr Asp Leu Gln Lys Ala Gln Pro Asp Gln Ala Ser Ile Ala Leu Leu

Arg Tyr Phe Asn Pro Val Gly Ala His Pro Ser Gly Asp Met Gly Glu

155

170

135

150

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180
                                185
Asp Pro Gln Gly Ile Pro Asn Asn Leu Met Pro Tyr Ile Ala Gln Val
                            200
Ala Val Gly Arg Arg Asp Leu Ala Ile Phe Gly Asn Asp Tyr Pro Thr
                        215
Glu Asp Gly Thr Gly Val Arg Asp Tyr Ile His Val Met Asp Leu Ala
                    230
                                        235
Asp Gly His Val Val Ala Met Glu Lys Leu Ala Asn Lys Pro Gly Val
                                    250
                245
His Ile Tyr Asn Leu Gly Ala Gly Val Gly Asn Ser Val Leu Asp Val
                                265
Val Asn Ala Phe Ser Lys Ala Cys Gly Lys Pro Val Asn Tyr His Pro
                            280
Ala Pro Arg Arg Glu Gly Asp Leu Pro Ala Tyr Trp Ala Asp Ala Ser
                        295
Lys Ala Asp Arg Glu Leu Asn Trp Arg Val Thr Arg Thr Leu Asp Glu
                    310
                                        315
Met Ala Gln Asp Thr Trp His Trp Gln Ser Arg His Pro Gln Gly Tyr
                                    330
Pro Asp
<210> 2
<211> 316
<212> PRT
<213> Escherichia coli
<400> 2
Lys Gln Arg Val Phe Ile Ala Gly His Arg Gly Met Val Gly Ser Ala
Ile Arg Arg Gln Leu Glu Gln Arg Gly Asp Val Glu Leu Val Leu Arg
                                25
Thr Arg Asp Glu Leu Asn Leu Leu Asp Ser Arg Ala Val His Asp Phe
Phe Ala Ser Glu Arg Ile Asp Gln Val Tyr Leu Ala Ala Ala Lys Val
                        55
Gly Gly Ile Val Ala Asn Asn Thr Tyr Pro Ala Asp Phe Ile Tyr Gln
                    70
                                        75
Asn Met Met Ile Glu Ser Asn Ile Ile His Ala Ala His Gln Asn Asp
                85
                                    90
Val Asn Lys Leu Leu Phe Leu Gly Ser Ser Cys Ile Tyr Pro Lys Leu
                                105
Ala Lys Gln Pro Met Ala Glu Ser Glu Leu Leu Gln Gly Thr Leu Glu
Pro Thr Asn Glu Pro Tyr Ala Ile Ala Lys Ile Ala Gly Ile Lys Leu
                        135
Cys Glu Ser Tyr Asn Arg Gln Tyr Gly Arg Asp Tyr Arg Ser Val Met
                                        155
Pro Thr Asn Leu Tyr Gly Pro His Asp Asn Phe His Pro Ser Asn Ser
```

170

205

220

His Val Ile Pro Ala Leu Leu Arg Arg Phe His Glu Ala Thr Ala Gln 185 Asn Ala Pro Asp Val Val Trp Gly Ser Gly Thr Pro Met Arg Glu Phe 200

Leu His Val Asp Asp Met Ala Ala Ser Ile His Val Met Glu Leu

215

165

<210> 3 <211> 312 <212> PRT

<213> Homo sapiens

<400> 3

Met Arg Ile Leu Val Thr Gly Gly Ser Gly Leu Val Gly Lys Ala Ile Gln Lys Val Val Ala Asp Gly Ala Gly Leu Pro Gly Glu Asp Trp Val Phe Val Ser Ser Lys Asp Ala Asp Leu Thr Asp Thr Ala Gln Thr Arq 40 45 Ala Leu Pro Glu Lys Val Gln Pro Thr His Val Ile His Leu Ala Ala Met Val Gly Gly Leu Phe Arg Asn Ile Lys Tyr Asn Leu Asp Phe Trp 75 Arg Lys Asn Val His Met Asn Asp Asn Val Leu His Ser Ala Phe Glu 90 Val Gly Ala Lys Val Val Ser Cys Leu Ser Thr Cys Ile Phe Pro Asp 100 105 Lys Thr Thr Tyr Pro Ile Asp Glu Thr Met Ile His Asn Gly Pro Pro 120 His Asn Ser Asn Phe Gly Tyr Ser Tyr Ala Lys Arg Met Ile Asp Val 135 140 Gln Asn Arg Ala Tyr Phe Gln Gln Tyr Gly Cys Thr Phe Thr Ala Val 150 155 Ile Pro Thr Asn Val Phe Gly Pro His Asp Asn Phe Asn Ile Glu Asp 170 Gly His Val Leu Pro Gly Leu Ile His Lys Val His Leu Ala Lys Ser 185 Ser Gly Ser Ala Leu Thr Val Trp Gly Thr Gly Asn Arg Arg Gln Phe 200 205 Ile Tyr Ser Leu Asp Leu Ala Gln Leu Phe Ile Trp Val Leu Arg Glu 215 220 Tyr Asn Glu Val Glu Pro Ile Leu Ser Val Gly Glu Glu Asp Glu Val 235 230 Ser Ile Lys Glu Ala Ala Glu Ala Val Glu Ala Met Asp Phe His 250 Gly Glu Val Thr Phe Asp Thr Thr Lys Ser Asp Gly Gln Phe Lys Lys 260 265 Thr Ala Ser Asn Ser Lys Leu Arg Thr Tyr Leu Pro Asp Phe Arg Phe 280 Thr Pro Phe Lys Gln Ala Val Lys Glu Thr Cys Ala Trp Phe Thr Asp

290 295
Asn Tyr Glu Trp Gln Ala Arg Lys
305 310